

The Invention Claimed Is:

1. In a conveyor wherein stacks of food product are transported on a conveying surface and must be temporarily stopped, a mechanism comprising:
 - a lower stop having a lower stack-engaging portion and a lift portion, said
- 5 lift portion selectively actuatable to elevate said lower stack-engaging portion to engage a bottom surface of the stack and to lift said stack above said conveying surface; and an upper stop having an upper stack-engaging portion and a lowering portion, said lowering portion selectively actuatable to lower said upper stack-engaging portion to engage an upper surface of said stack.

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2. The mechanism according to claim 1, comprising a lost-motion connection between said lowering portion of said upper stack-engaging portion to accommodate stacks of varying heights.

- 15 3. The mechanism according to claim 2, wherein said upper stack-engaging portion engages said stack by force of the weight of said upper-engaging portion.

4. The mechanism according to claim 1, wherein said lift portion and said lowering portion are configured to act simultaneously.

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5. The mechanism according to claim 1, wherein said lift portion and said lowering portion each comprise a pneumatic cylinder, said pneumatic cylinders being

dual acting to both lift and lower said upper stack-engaging portion and said lower stack-engaging portion to engage and then release said stack.

6. The mechanism according to claim 1, wherein said upper stack-engaging
5 portion comprises a disk having a flat bottom surface.

7. The mechanism according to claim 2, wherein said lowering portion
comprises a pneumatic cylinder having an extending rod, and said lost-motion
connection comprises an end cap fixed to said rod and a connection portion fixed to
10 said upper stack-engaging portion, said connection portion having a space allowing
limited free vertical movement of said end cap.

8. A conveyor system for laterally aligning stacks of food products,
comprising:
15 a conveying surface receiving a stream of stacks sequentially in laterally
spaced positions, said conveying surface conveying said stacks in longitudinal lanes;
two lower stops arranged laterally side-by-side beneath two adjacent
longitudinal lanes, and each having a lower stack-engaging portion a lift portion, said lift
portion selectively actuatable to elevate said lower stack-engaging portion to engage a
20 bottom surface of the stack and to lift said stack above said conveying surface; and
two upper stops arranged respectively above said two lower stops, and
each having an upper stack-engaging portion and a lowering portion, said lowering

portion selectively actuatable to lower said upper stack-engaging portion to engage an upper surface of said stack;

wherein when two side-by-side stacks are stopped by said two upper stops and said two lower stops, said two upper stops and said two lower stops are activated to transfer said stacks together longitudinally along said conveying surface.

9. The conveyor system according to claim 8, comprising a lost-motion connection between said lowering portion of said upper stack-engaging portion to accommodate stacks of varying heights.

10 10. The conveyor system according to claim 9, wherein said upper stack-engaging portion engages said stack by force of the weight of said upper-engaging portion.

15 11. The conveyor system according to claim 8, wherein said lift portion and said lowering portion are configured to act simultaneously.

12. The conveyor system according to claim 8, wherein said lift portion and said lowering portion each comprise a pneumatic cylinder, said pneumatic cylinders being dual acting to both lift and lower said upper stack-engaging portion and said lower stack-engaging portion to engage and then release said stack.

13. The conveyor system according to claim 8, wherein said upper stack-engaging portion comprises a disk having a flat bottom surface.

14. The conveyor system according to claim 9, wherein said lowering portion
5 comprises a pneumatic cylinder having an extending rod, and said lost-motion connection comprises an end cap fixed to said rod and a connection portion fixed to said upper stack-engaging portion, said connection portion having a space allowing limited free vertical movement of said end cap.